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Notice of Allowability	Application No.	Applicant(s)	
	10/501,579	FUKUMOTO, KENICHI	
	Examiner	Art Unit	
	Y. J. Han	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a case filed on 7/14/04.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 14 July 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

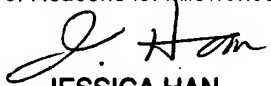
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>7/14/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


JESSICA HAN
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-16 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claim 1 recites, inter alia, a PWM control signal generation circuit for generating a PWM control signal upon receipt of said PWM triangular wave signal and current detection signal by generating an error signal based on said current detection signal; and comparing said error signal and PWM triangular wave signal to generate said PWM control signal; and an intermittent operation control circuit for setting the level of said error signal to substantially zero based on an intermittent operation signal during an off-duty period of said intermittent operation, wherein said semiconductor switch is switched on and off in accordance with said PWM control signal.

Claim 5 recites, inter alia, a PWM control signal generation circuit for generating a PWM control signal upon receipt of said PWM triangular wave signal, current detection signal, and voltage detection signal by generating an error signal based on said current detection signal and voltage detection signal; and comparing said error signal and PWM triangular wave signal to generate said PWM control signal; and an intermittent operation control circuit for setting the level of said error signal to substantially zero based on an intermittent operation signal during each off-duty period of said intermittent operation, wherein said semiconductor switch is switched on and off in accordance with said PWM control signal.

Claim 11 recites, inter alia, generate an error signal based on said current detection signal and voltage detection signal; compare said error signal with said PWM triangular wave signal to generate said PWM control signal; and an intermittent operation control circuit for setting the

Art Unit: 2838

level of said error signal to substantially zero based on an intermittent operation signal during each off-duty period of the intermittent operation, wherein said semiconductor switch is switched on and off in accordance with said PWM control signal.

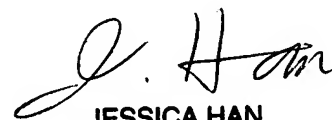
The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include either of the above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JESSICA HAN
PRIMARY EXAMINER